



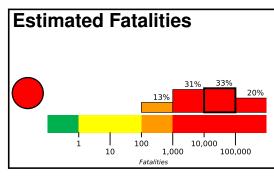


PAGER Version 7

Created: 4 weeks, 6 days after earthquake

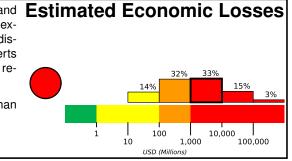
M 7.3, 30km S of Halabjah, Iraq

Origin Time: 2017-11-12 18:18:17 UTC (Sun 21:48:17 local) Location: 34.9022° N 45.9520° E Depth: 19.0 km



Red alert for shaking-related fatalities and economic losses. High casualties and extensive damage are probable and the disaster is likely widespread. Past red alerts have required a national or international response.

Estimated economic losses are less than 1% of GDP of Iran.



Estimated Population Exposed to Earthquake Shaking

| ESTIMATED POPULATION EXPOSURE (k=x1000) | | _* | 2,748k* | 6,846k* | 30,282k | 28,797k | 1,718k | 164k | 0 | 0 |
|--|--------------------------|----------|---------|---------|----------|----------|-------------|------------|----------|----------|
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | 11-111 | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED | SHAKING | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| DAMAGE | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

population per 1 sq. km from Landscan

5000

Hamadan

Khorramabad

100

Arak

Kahriz

Population Exposure

32.8°N

43.2 ° W V 46.0 W 48.8 Lankaran Khvoy Tiabriz Orumiyeh Tiabriz Orumiyeh Ali Mawsil ali Jadidah As Sulaymaniyah

| Structures

Overall, the population in this region resides in structures that are highly vulnerable to earthquake shaking, though some resistant structures exist. The predominant vulnerable building types are low-rise nonductile concrete frame with infill and adobe block construction.

Historical Earthquakes

| | | - | | | |
|---------------|---------------|------|---------------|-------------------|--|
| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths | |
| (OTC) | (KIII) | | IVIIVII(#) | Deatiis | |
| 1962-09-01 | 358 | 6.9 | IX(4k) | 12k | |
| 2002-06-22 | 288 | 6.5 | VII(5k) | 227 | |
| 1990-06-20 | 375 | 7.4 | IX(83k) | 45k | |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

Selected City Exposure

from GeoNames.org

| ММІ | City | Donulation |
|------|----------------|------------|
| | City | Population |
| VIII | Javanrud | <1k |
| VIII | Sarpol-e Zahab | 52k |
| VIII | Javanrud | 39k |
| VIII | Derbendixan | <1k |
| VIII | Tazehabad | <1k |
| VII | Halabjah | 57k |
| ٧ | Erbil | 933k |
| V | Baghdad | 7,216k |
| V | Mosul | 1,740k |
| ٧ | Tabriz | 1,425k |
| Ш | Qom | 900k |
| | | |

bold cities appear on map.

(k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

Al Kut

An Nasiriyah

Samarra

Baghdad

An Najaf

^{*}Estimated exposure only includes population within the map area.